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**FIRST REPORT**  
OF THE  
**EDINBURGH EYE INFIRMARY,**  
FROM THE TIME OF ITS OPENING ON THE 1ST JULY, TO 20TH  
NOVEMBER 1834.

BY

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Institution.

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IN submitting to the profession the first Report of the Edinburgh Eye Infirmary, a short statement of its objects may be premised.

The two great objects of the Edinburgh Eye Infirmary are, *first*, the *relief* of those labouring under diseases of the eye and its appendages; and, *secondly*, the *instruction* of medical students in the nature and best modes of treatment of this class of diseases.

To accomplish the first of these objects, this Institution has been founded on the plan which has been successfully, and with great benefit, adopted in the case of the London Eye Infirmary, the Royal Westminster Eye Infirmary, the Glasgow Eye In-



firmary, and many others in different quarters. The plan alluded to consists in giving advice and supplying medicines to persons labouring under diseases of the eye, and who are able to attend at the institution at stated periods ; and, at the same time, having a few beds in the house for the proper accommodation of those whose cases are of such an aggravated or important nature as to require the quietness, attention, and conveniences of an hospital for their recovery.

This conjunction of the benefits of a dispensary and an hospital is extremely well adapted for the treatment of ophthalmic diseases ; both on account of the greater number of the cases not requiring the confinement of an hospital, and a large proportion of the patients being children under eight years of age, who are often not easily managed when away from their parents. The hospital department, again, is indispensable to the lower ranks, either for the successful treatment of many distressing cases, requiring much attention and care to prevent the loss of sight, or the performance of operations for the restoration of this faculty.

The Edinburgh eye Infirmary is open daily at eleven o'clock for the admission of patients, when the medical officers and pupils are in regular attendance. This arrangement has many advantages. The in-patients are seen and prescribed for daily, as well as those out-patients, whose cases are of an acute nature, and may be undergoing frequent and rapid changes. The out-patients, who do not require to attend daily, are divided between different days, which prevents the cases from being too numerous for the time which can be daily allotted to the visit ; and, lastly, it enables those who do not require to attend daily, and who might be prevented from attending on particular days, (from the state of the weather or other causes,) to attend when most convenient for themselves.

As yet, it has only been cases requiring operations for the restoration of sight that have been admitted into the house as in-patients. But there are many cases of violent inflammation, threatening the destruction of the eye as an organ of vision, which it would be very desirable to receive into the house, did the circumstances of the Institution admit of it.

For the instruction of medical students in this branch of the profession, the other great object of the Edinburgh Eye Infirmary, it is open to the attendance of a limited number, on payment of a small fee to its funds. These students not only see the cases, and have their nature and treatment explained to them, but they have also the advantages of a considerable collection of preparations to assist them in studying the anatomy and diseases of the eye. It is further contemplated to



deliver annually, at least one course of about thirty lectures, on the anatomy, physiology, and diseases of this organ.

Having shortly stated the objects of the Edinburgh Eye Infirmary, I shall now mention some of the reasons which induced me to commence it.

I felt that such an institution was much wanted, from the number of poor patients labouring under these diseases who applied to me for relief. And having for many years devoted more than ordinary attention to this, my favourite pursuit, I felt anxious to render my services readily available to those who might require my assistance. This, I conceived, could be best accomplished by such an establishment; as being not only the most convenient and agreeable arrangement for the patients and myself, but the only way in which *justice* could be done, either to them or to me, in the treatment of their cases. For, the houses of the lower orders are not only ill suited to the performance of, and recovery from, the more important and delicate operations on the eye; but in their after-treatment, such patients require to be removed, for a time, from the noise and bustle of their families, to situations in which they can obtain the necessary quiet and attendance for their favourable recovery; and it is in general not less indispensable, that they may be placed completely under the control of their medical attendant, and prevented from getting any thing which might prove hurtful to them.

To numerous poor persons, also, who annually come from different parts of the country to undergo operations for the restoration of their sight, and who are recommended to my care, I felt that an Eye Infirmary, into which they could be admitted, would be of great importance, and was much wanted, having very often been obliged either to provide lodgings for such individuals, or to decline rendering to them my professional services.

The approbation which my plan in commencing this Institution has obtained from the chief part of the profession in Edinburgh, both before and since it has been opened, is one of the most gratifying and encouraging circumstances which have occurred in its brief history.

Another important reason for establishing an Eye Infirmary in Edinburgh, was the institution of a School for ophthalmic surgery, a branch of professional education to which, in this place, sufficient attention has not hitherto been devoted. The sentiments which I entertain on this subject have been so ably stated by that justly celebrated surgeon, Mr Lawrence of London, that I cannot do better than quote his own words.

“ It often depends on the surgeon whether the patient shall



retain or lose, recover or remain bereft of vision. Common external inflammation of the eye, if neglected or improperly treated, by rendering the transparent anterior portion of the organ more or less opaque, proportionally injures vision; inflammation of the iris, when unchecked, causes contraction of the pupil and deposition of lymph in the aperture, which prevents the passage of light into the eye. Affection of the nervous structure, if not arrested in its beginning, terminates inevitably in diminution or loss of sight. Such distressing results have too often been promoted by modes of treatment, in favour of which the sanction of names that have enjoyed public confidence might be adduced. The success of operations for cataract, or artificial pupil, depends entirely on the knowledge, discrimination, and dexterity of the operator. The cases now alluded to are matters of daily occurrence, and make up the bulk of ophthalmic practice. The serious responsibility, which this view of the subject unfolds, will impel every conscientious man to turn his anxious attention to the affections of this important organ, and to embrace all opportunities of acquiring that knowledge which will enable him to act decisively and effectually on occasions of such momentous consequence.

“ If there are any, to whom the pleasure connected with the acquisition of knowledge, the satisfaction flowing from the consciousness of important duties rightly performed, and the gratitude so warmly expressed, for the inestimable benefits of averting blindness, or restoring sight, should not prove an incentive sufficiently powerful to the study of ophthalmic medicine and surgery, their case must be deemed desperate; unless, indeed, their minds, insensible to higher feelings and nobler motives, should obey the impulse of self-interest and fear; unless they should be affected by the prospects of disgrace and injury, which ignorance and its inseparable blunders must entail. The consequences of wrong treatment cannot be concealed here, as in the obscure affections of internal organs; the visible changes of structure are obvious to external observation, and the unfortunate individual, whose sight is injured or destroyed by unskilful treatment, serves as a lasting memorial of the incapacity and rashness to which he owes his misfortune. The study of diseases of the eye is therefore now justly regarded as an essential part of general medical education; but it is more particularly so to country practitioners, who are thrown entirely on their own resources; who cannot, as in the metropolis, and some large cities, call in the aid of superior talent and knowledge.

“ Although the importance of the subject must be admitted, it may be doubted whether the ophthalmic branch ought to be separated from the rest of medicine and surgery, as it



must be, to a certain extent, by devoting to it separate courses of lectures and treatises, and by instituting ophthalmic hospitals. The diseases of the eye, in general hospitals, are inadequate, from the smallness of their number, to the purposes of practical study, particularly that of exemplifying the various operations. Thus these institutions have been inefficient in reference to this important department.

“ It thus became desirable to establish an express and distinct school for ophthalmic surgery ; not because the principles of treatment differ from those applicable to disease in general ; nor because any peculiar mode of study is required ; but in order to supply a deficiency in the existing sources of professional instruction ; to provide, for the diseases of this important organ, those means of information which the general hospitals neither do, nor could provide consistently with the requisite attention to their other important objects. This proceeding, which at first view seems calculated to complete and perpetuate the separation, was the only rational mode of re-uniting ophthalmic practice to general surgery.

“ The opportunities afforded at ophthalmic hospitals are not intended nor calculated to make oculists ; but to impart to surgeons and physicians a knowledge of ophthalmic disease.”\*

With these views, so well expressed by Mr Lawrence, the greater part of the profession will readily accord. My reason for conceiving that an Eye Infirmary would prove advantageous to medical students, was not that the diseases of the eye were either neglected or overlooked by the teachers of general Surgery, but because the extent, the complexity and importance of the subject now require more attention than could be devoted to it in these surgical courses. Mr Lawrence delivered at the London Ophthalmic Infirmary a course of thirty Lectures on the Anatomy, Physiology, and different Diseases of the Eye, and their appropriate treatment, which were reported for a considerable time in the pages of a periodical work, and the substance of which, when condensed and rectified in a subsequent republication, have occupied a large and closely-printed octavo volume. It is also well known, that on the continent very complete courses of Lectures on Ophthalmic Surgery are delivered by the most eminent ophthalmologists of France, Germany, and Italy ; and that the celebrated Professor Beer of Vienna delivers a course of lectures on the subject occupying ten months, the lectures being delivered five or six times a week. Now, as the courses of surgery taught here consist each of about 100 lectures, it is evidently impossible to devote the necessary attention to the diseases of the eye without neglecting other important subjects.

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\* See Lawrence on the Eye, p. 2, 3, and 4.



The sources from which it is expected that the necessary funds will be obtained for the maintenance of this Institution are ;—1st, Contributions and donations from benevolent individuals ; 2dly, The proceeds of an annual charity sermon ; and, 3dly, The fees obtained from medical students for their attendance. By the kindness and liberality of my friends, the Treasurer has already received L. 117, 7s. 6d.

If the plan which has now been successfully commenced, shall continue to prove useful to the public, and if I shall have been instrumental in filling up a deficiency which appeared to exist in this city, so celebrated for other departments of the medical profession, I shall feel amply rewarded for my labours.

The number of cases which have been admitted into the Edinburgh Eye Infirmary, from the 1st of July 1834, the time of its being opened, till the 20th of November, has been 268 altogether. Of these, eleven have been admitted as in-patients ; the rest were placed in the books as out-patients, some of whom were visited at their own dwellings. Many of the individuals were affected with diseases in both eyes, which, in some, were of a different nature ; so that the number of cases of disease of the eye admitted into the institution was considerably greater than the number of patients above stated. The number of patients affected with each disease were as follow.

Inflammation of eyelids (simple),	1	Inflammation of conjunctiva (puru-	
Do. erysipelatous	2	lent),	5
Ophthalmia tarsi,	36	Strumous ophthalmia,	27
Eversion of eyelid,	2	Inflammation of cornea,	14
Inversion of eyelid,	1	Opacities and specks of cornea,	15
Tumours of eyelids,	4	Ulcers of cornea,	29
Do. lacrymal caruncle,	1	Staphyloma of cornea,	10
Ecchymosis of eyelid and ball,	1	Do. and sclerotica,	2
Spasmodic affection of muscles of eye,	1	Iritis,	10
Paralysis of muscles of eye,	1	Closed pupil,	11
Fistula lacrymalis,	7	Inflammation of retina,	1
Injuries of eyeball from foreign bodies,	8	Amaurosis,	25
Inflammation of conjunctiva (acute and chronic),	40	Cataract, single and double,	17

The following list exhibits the number of cases in which operations have been performed for the removal of cataract, the liberation of closed pupil, the cure of fistula lacrymalis, &c.

	Operations for cataract.	By Extraction.	By Needle.
Lawrie,	2	1	1
M'Laren,	2	1	1
Reid, Leith,	2		2
Rankine,	1	1	
Wright,	1		1
Cooper,	1	1	
Thomson,	1	1	
Ramsay,	1	1	
Slimmon,	1	1	
	<hr/> 12	<hr/> 7	<hr/> 5



Artificial pupil.		Fistula lacrymalis,	2
M'Pherson,	1	Enlarged lac. caruncle,	1
Wright,	1	Tumours of lids,	2
M'Candlish,	1	Vascular speck,	4
Henderson,	1	Inversion of lids,	2
—	—	Ex. of foreign body,	3
	4	Pterygium,	1
			<hr/> 15

Number of cases cured,	-	-	151
relieved,	-	-	37
incurable,	-	-	34
irregular,	-	-	13
under treatment,	-	-	33

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268

*Remarks on the most important of the above cases.*

1. *Fistula Lacrymalis*.—Of this disease seven cases occurred. The most of these consisted of chronic enlargement of the lacrymal sac, from obstruction of the nasal duct, and accompanied with purulent secretion from the membrane lining the sac. In these cases the complaint had existed for several years, during which time the patients relieved themselves periodically by pressure on the tumour, by which its contents were evacuated through the *puncta lacrymalia*. In several of these the complaint was cured by simply introducing into the eye a solution of sulphate of zinc, or nitrate of silver, which found its way through the lacrymal *puncta* into the lacrymal sac, and thus produced beneficial effects on the diseased lining membrane. In two cases a cure was accomplished by the introduction of Ware's style. In one of these, it was introduced through a spontaneous opening which had taken place in the sac; in the other, an opening was made with a knife. The obstruction in the nasal duct was easily overcome in both cases, and the style was worn for two or three weeks.

2. *Injuries of Eyeball from Foreign Bodies*.—These injuries had been received upon the cornea in each of the cases which presented themselves. This forms a very interesting class of cases, from the important results which often ensue. The degree of importance of the injuries appears to depend on the depth to which the cornea and eyeball have been penetrated, and the degree of contusion of the eye which has been received at the same time. In several of the cases, loss of vision resulted from the inflammation which followed the accident, without the whole thickness of the cornea being penetrated by the wounding body, by closing of the pupil and opacity of the lens having supervened. Examples also occurred of the important changes which occasionally take place after injuries of the eye, consisting of opacity and absorption of the



lens, *hydrophthalmia*, and atrophy of the eye. On these I purpose to dilate more fully in the next report.

3. *Inflammation of Conjunctiva, acute and chronic*.—These cases have been enumerated together, because they may be considered to consist of two different stages of the same disease. In the first, or acute stage, simple antiphlogistic treatment, consisting of local bleeding by cupping and leeches, warm fomentations with decoctions of poppy heads, and, at an after period, the solution of the acetate of lead, with gentle purgatives, were the means, in general, successfully employed. In the chronic stage, in which the inflammation appears to be of a passive nature, gentle stimulants, consisting of opium wine, solution of nitrate of silver, sulphate of zinc, and a weak red precipitate ointment, were employed with success.

4. *Strumous Ophthalmia, Inflammation, Opacities and Ulcers of Cornea*.—These affections were all very similar in their nature, and frequently blended together in the same case; and they seemed severally to be modifications of the same disease, viz. strumous ophthalmia. The inflammation accompanying them was in general of a chronic nature, but generally assuming alternately an active and a passive state. For the acute or active stage, warm poppy fomentations and purgatives were employed with great benefit; in the other, gentle stimulants, consisting of solution of nitrate of silver, muriate of mercury, sulphate of zinc, or wine of opium, were employed. To pustules about the margin of the cornea, a very common occurrence, the application of a pencil of nitrate of silver proved the most speedy mode of accomplishing a cure, one or two applications being sufficient. To deep or irritable ulcers of the cornea, a strong solution of nitrate of silver was generally applied by the point of a hair-pencil;—the application of this substance in a solid form, in such cases, being in general objectionable, on account of the great danger there is of causing an opening into the anterior chamber with it. After the application of the strong solution of nitrate of silver in cases attended with much increased vascularity, warm fomentations were generally applied with great relief; so that after a few such applications, at intervals of two or three days, the cicatrization of the ulcers was accomplished. The most tedious and troublesome cases of strumous ophthalmia which occurred were those in which a deposition of lymph took place between the layers of the cornea from inflammation of its middle layer. In these cases, at first the antiphlogistic treatment, and afterwards, the application of gentle stimuli, were most beneficial; but whether the case terminated in the formation of an ulcer or not, a degree of permanent opacity was often the result. In four cases of



corneal opacity, upon which red vessels were ramified from the conjunctiva, I divided their trunks by the excision of a small portion of them with the most complete success. In two of these cases the vascular speck had existed for several years, harassed the patients with pain and intolerance of light, which prevented the use of the eyes, and had resisted every other treatment which was applied. The vascular speck appears to be the result of the healing process during the cicatrization of an ulcer on the cornea, by some of the inflamed vessels remaining permanently enlarged. One of the most remarkable symptoms of strumous ophthalmia, and which occurred to a great degree in several of our cases, was the intolerance of light. It is often curious to observe the great care of the patient to exclude every particle of light. This symptom is attended with copious lacrymation and contraction of the pupil. It does not occur in all cases, nor is it confined to the worst, but often exists where the affection appears to be slight, and it continues for weeks or months. It does not appear to depend on the state of the cornea, as this part is sometimes transparent and unaffected. As this intolerance of light does not appear to be caused by acute inflammation, it is not in general to be considered as an indication of an alarming nature. I have often observed it to be worst in the most squalid wretched-looking children, and to be greatly mitigated by more nourishing diet, with attention to the state of the stomach and bowels, by giving tonics and laxatives. It is also of great importance in such cases to attend to the state of the eyes, and gradually to induce the patient to accustom them to the light; for I have little doubt that the intolerance of light is aggravated by its complete exclusion for a length of time. There also seems to be a spasmodic closing of the *orbicularis palpebrarum* muscle, which appears to be lessened by warm bathing and wine of opium.

In two cases of ulceration of the cornea, an opening formed into the anterior chamber, and formed what I have described as a *fistula corneæ*. In one of these the iris protruded. They both recovered. In another case the fistulous opening continued.

5. *Iritis*.—Ten cases of acute inflammation of the iris occurred. The whole of them seemed to be connected with venereal disease, and most of them were accompanied with other secondary symptoms. Though the inflammation in most of these cases affected both eyes very severely, and were attended with effusions of lymph, they all recovered without loss of sight. The treatment of these cases consisted of antiphlogistic remedies and belladonna, followed by mercury. In several of them the antiphlogistic treatment without mercury had been fairly tried for a



considerable length of time (in one case for 5 weeks) both before and after their admission to the Infirmary, but without giving a decided check to the progress of the disease. But after the mercury was given, whenever it affected the mouth, the disease of the eye was not only arrested, but speedily abated ; so that nothing could be attended with more highly beneficial effects than the mercury appeared to be in these cases. And I feel strongly convinced, from what I have seen in these and other cases, as well as from the experience of others, that without the decided effects of the mercury, the inflammation would very probably have continued and caused the destruction of the eyes. I therefore conceive that I would not be justified in withholding a remedy which produced such marked beneficial effects when the loss of such an organ is threatened, notwithstanding the high authority which has advocated the non-mercurial treatment. If these advocates were to confine their remarks to the *abuse* of mercury, not the *use* of it, they would obtain many more proselytes.

6. *Artificial Pupil*.—Eleven cases occurred of partial or complete closure of the pupil, or in which the natural pupil was rendered useless from central opacity of the cornea. In four of these, operations for artificial pupil were performed with more or less success in restoring vision. The different modes by which these operations were performed will be detailed in a subsequent report.

7. *Cataract*.—Patients affected with cataract form the most important class of cases at an Eye Infirmary ; and these became peculiarly interesting to the surgeon, because this disease is a common cause of blindness which is curable by an operation. Twenty-three cases of cataract presented themselves at the Infirmary. Of these 11 were simple cases ; 5 complicated with adhesions between the iris and capsule of the lens ; and 7 complicated with amaurosis. Of these cases 12 eyes became the subject of operation, in two of which amaurosis existed. These cases complicated with amaurosis were operated on at the urgent desire of the patients, after the nature of their cases had been explained to them, but without much prospect of benefit. In all the cases, however, the removal of the cataracts and recovery of the eyes were completely successful, so far as the operation was concerned ; though in the two cases complicated with amaurosis, very little benefit as to the recovery of sight ensued. In some of the other cases an operation was declined on the part of the patient ; in the rest it would have been either improper, or was unnecessary.

In seven of the cases, the opaque lens was removed by the operation of extraction performed in the common way by Beer's knife. In none of the cases was there any of the vitreous hu-



mour evacuated, or any entanglement or protrusion of the iris in the incision. In all the cases the pupils were quite circular and of a good size, except in one, where the iris having got under the edge of the knife, a portion of it was cut off by the incision, rather than withdraw the knife to complete the operation otherwise. This case did equally well with the others, the patient having left the Infirmary in 12 days. The pupil was considerably enlarged, but his vision was good.

In one of these cases only was it necessary to bleed the patient after the operation, rest, quiet, and low diet being sufficient to prevent inflammation. The average number of days which these seven patients required to remain in the house after the operations was 13 days.

Five of the cataractous eyes were operated on by the needle, the operations having all been to break up the lens, that it might be removed by absorption. Two of these were the eyes of a young child affected with congenital cataract. One a soft cataract complicated with adhesions to the iris; one of cataract which had been previously partially broken up; and one in which opacity of the lens had supervened to a successful operation for artificial pupil. In the three last cases the eyes got well, and vision was restored. In the case of the infant, nearly the whole of the opaque lenses had become absorbed; and nine weeks after the first operation, which had not been followed by any inflammation, I performed operations, by introducing through the cornea a small straight needle, by which the remaining nucleus was broken up and partially brought into the anterior chamber. Considerable inflammation followed these second operations, and the case is still under treatment.

In the above cases it was peculiarly gratifying to see the beneficial effect of having beds in the house for those requiring operations, their recovery having, in general, been rapid and without inflammatory symptoms, requiring depletion and other remedies; and thus illustrating the practical advantages of the plan upon which the institution is established.

In conclusion, the success of the institution has been very gratifying and satisfactory, and has obtained for it the approbation of those who witnessed the proceedings. To my assistant and house-surgeon, Mr J. P. Rae, I have been under great obligations, as well to the other gentlemen who attended as pupils and assistants. It is also gratifying to me to express the obligation under which I am to Mr Cafe, cupper, for his readiness in having at all times attended to perform local blood-letting in this precise and effectual manner, in patients who required it, by which a great expense for leeches has been saved to the Institution.











